



United States Nuclear Regulatory Commission

**STATUS OF RESEARCH
PROGRAM GSI-191
“ASSESSMENT OF DEBRIS
ACCUMULATION ON PWR SUMP
PERFORMANCE”**

**Dr. B. P. Jain
Office of Nuclear Regulatory Research
Division of Engineering Technology
July 30, 2003**



United States Nuclear Regulatory Commission

Current Status

- ☐ RES Issued DG-1107 for Public Comments (Feb' 2003)
- ☐ RES Issued Knowledgebase NUREG/CR (Feb' 2003)
- ☐ RES Issued RG 1.82, Rev. 3 To NRR, OGC (July 14, 2003)



United States Nuclear Regulatory Commission

Completed & Planned RES Activities

- ☐ Issued KnowledgeBase NUREG/CR-6808 - Feb '03
- ☐ Issued DG-1107 for Public Comments –Feb '03
- ☐ Public Comments Resolved
- ☐ Issued RG 1.82 for Internal Comments
- ☐ Final RG 1.82, Rev. 3 is scheduled for Sept '03



United States Nuclear Regulatory Commission

GSI- 191 Closure RES Planned Activities (Near Term)

- Cal-Sil Head Loss Test Report
 - ☐ Draft NUREG/CR – Aug' 03
 - ☐ Final NUREG/CR –Scheduled Sept' 03

- RG 1.82
 - ☐ Resolve NRR and OGC Comments
 - ☐ Present for ACRS and CRGR Review
 - ☐ Issue in September 2003

- Chemical Test Report (ACRS)
 - ☐ Tests Completed - July' 03
 - ☐ Draft NUREG/CR - Aug' 03
 - ☐ Peer Review - Aug' 03
 - ☐ Final NUREG/CR - Sept' 03



United States Nuclear Regulatory Commission

RES Planned Activities (Long-Term)

- Debris Sample Characterization for PWRs
 - ☐ Debris Sample from Five Volunteer Plants-Aug' 03
 - ☐ LANL's Analyses Starts – Sept' 03
 - ☐ NUREG/CR – March' 04
- Additional Head Loss Tests
 - ☐ Tests Completed by Jan' 04
 - ☐ Test Report by Feb' 04
 - ☐ Final NUREG/CR –March' 04



United States Nuclear Regulatory Commission

- HPSI Throttle Valve Clogging issue
 - ☐ -Screen Penetration Tests
 - Tests Completed by Jan' 04
 - Test report – March' 04
 - ☐ Throttle Valve Clogging Tests
 - Design and Construct Experiment Facility – March' 04
 - Test Results Available – April' 04
 - Draft NUREG/CR – Aug' 04
 - Final NUREG/CR – Sept' 04
 - ☐ Effect of Centrifugal Pump on Ingested Debris - Scope & Schedule TBD after Completion of Throttle Valve Clogging Tests
- International Workshop in Albuquerque, NM – Feb/March 2004



United States Nuclear Regulatory Commission

RES Conclusions

- All RES Activities are Scheduled to be Completed by end of FY 04